

## 2006 — New DCS and Generator Control Systems

### IPSC

**New ICS Simulator** — The ICS simulator was under development for the past four years, with Steve Boardman having the primary responsibility for design and development of the system to provide realistic rehearsal for specific procedures and emergency responses. Construction and assembly work were done by Dave Steele. The simulator which mimicked the spatial relationships and appearance of the main control desk and main control panel using the instructor's console, was capable of reproducing most of the day-to-day operational circumstances faced by ICS personnel. Additionally, various abnormal and emergency scenarios were programmed and practiced. In a system which was as reliable as this one, such practice is was a rarity.

The simulator also provided a means to collect and store much of the accumulated expertise of the experienced ICS personnel. IPSC had the potential to lose this wisdom and lore as it faced the anticipated increasing turnover at IPSC. This new system helped to review and record this knowledge and facilitated its transfer to incoming replacements.

**IPSC Mourned the Passing of Joe D. Hamblin, Manager of Support Services** — Joe Del Hamblin, age 55, passed away suddenly Friday, February 6, 2006. Joe was born on May 1, 1950, in Kanab, Utah, to Ben Broadbent and Christina Chatterley Hamblin. He married Marsha Kay Schoenfield, his high-school sweetheart, on July 25, 1969. Joe and Marsha were married for 36 years and had five children and two grandchildren.

Joe graduated from Kanab High School in 1968. He attended Utah Technical College for two years where he earned a degree in Electrical Automation and Technology. He worked for Utah International, Navajo Generating Station, Peabody Coal, Westinghouse Hanford, Laramie River Station, and MATSCO before being hired at IPSC, in 1984, as an Assistant Superintendent of Maintenance. During his 21 years of employment at IPSC, he served in the following management positions: Maintenance Superintendent, Converter Station Manager, Operations Superintendent, and Manager of Support Services.



Joe was born and raised a true cowboy. He will be remembered for his "cowboy up" attitude, his black Stetson cowboy hat, and his boots; but more importantly, he will be remembered for his positive influence, smile, and friendship.

**New Manager of Support Services and New Personnel Manager** — The Manager of Support Services is responsible for the Clerical Pool, Warehouse, Accounting, Purchasing, and Personnel Sections. Roger W. Stowell was approved by the IPSC Board of Directors as the new



Manager of Support Services on February 22, 2006. Roger began his employment with IPSC as Personnel Manager in December 1983.

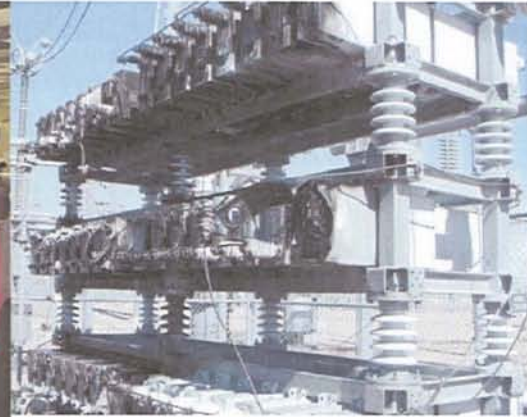
Prior to IPSC, he worked for IPA on impact alleviation for IPP, as well as for Salt Lake City. Roger received a bachelor degree from Brigham Young University (BYU) and a master degree from the University of Utah (U of U).

Jim Hill replaced Roger as Personnel Manager. Jim Hill had been working in the Personnel Section since January 1987. Jim received a bachelor degree from BYU and a master degree in Human Resource Management from the U of U. Prior to IPSC, he worked for Milne Truck Lines and Questar Corporation.

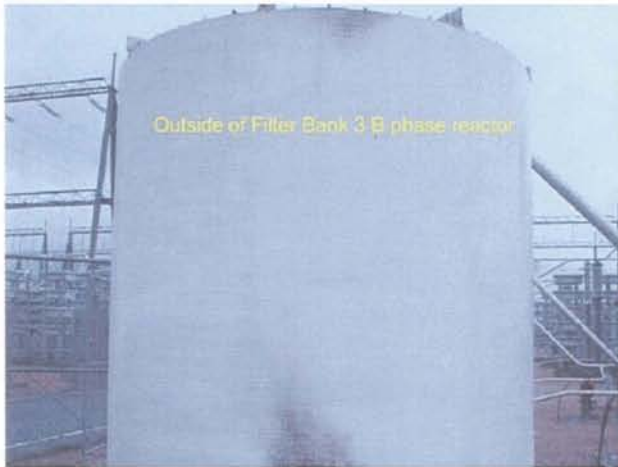
**Two Fires at Converter Station During March** — During the early morning hours on March 4, Converter Station Operators heard an explosion and saw a fireball on the south end of the ICS DC switchyard.

Ice, snow, and contamination caused a flashover on Capacitor 1M. Capacitor 1M consisted of 96 individual capacitor cans connected in series and parallel to give a capacitive rating of 14 uF. Its purpose was to prevent overvoltages on the metallic return bus in the event of commutation failures at Adelanto or close AC faults at ICS. Cap 1M had 48 individual capacitor cans destroyed either due to the resulting fire or flashover. Five of the support insulators were also damaged. ICS Engineers, along with consultation from ABB, devised an interim solution concerning a reconfiguring of Cap 1M. Cap 1M was rewired to 7 uF from the original 14 uF and an arrester was temporarily placed in parallel with the newly configured Cap 1M. This solution, although not perfect, allowed for metallic return operation without restriction to load. Sixty new capacitors were ordered to return Cap 1M to the original specifications.





On March 18, at 16:20, another fire was reported in the ICS AC yard. The reactors on all three filter banks were on fire. At the time of the fire it was windy and IPSC was experiencing a wet snow storm. Nine air core reactors that



filtered the 3/5/7 harmonics were damaged by the fire. Filter bank 1 was restored to service with one spare and the best two damaged ones. Filter banks 2 and 3 were restored without the 3/5/7 filters available. This configuration limited the DC transmission system to 1,280 MW.

**Military Presentation to Gordon Rawlinson** — On March 15, LTC Gordon Rawlinson (alias GLR Baghdaddy) was presented a framed montage honoring his military service. Gordon was mobilized to Baghdad, Iraq, on September 11, 2005, for a six-month tour. He was assigned to the Joint Contracting Command - Iraq/Afghanistan (JCC-I/A) as the J3 in charge of military operations. The JCC-I/A headquarters was located in the Green Zone, or International Zone (IZ), in downtown Baghdad, and was in charge of all reconstruction/military contracting in Iraq. Over 35,000 contracts were issued for over 18.7 billion dollars. Through car bombs, roadside bombs, rockets, mortar, and gunfire attacks, he was able to make it home safely. Gordon appreciated the freedom in the United States and



the support he received from IPSC. Making the presentation were George W. Cross, President and Chief Operations Officer of IPSC; Dennis K. Killian, Superintendent of Technical Services; and Pam Jensen.

**Knox Huntsman Presented Patriot Award to George W. Cross** — Knox Huntsman, representing the Utah Committee for Employer Support of the Guard and Reserve, presented the Five Star Patriotic Employer Award to George W. Cross and IPSC on March 23, 2006. This award was based on an employer's demonstrated concern for the citizen/soldier's welfare. Nomination for this award came from Marine Sergeant Eric Jeffs, who had been twice deployed during his employment at IPSC, and who in the written nomination expressed appreciation for the support given to him and his family. IPSC was honored by the recognition and opportunity to support Eric and others among us who so honorably serve our country.

**Unit 2 Spring Outage** — A major outage on Unit 2 was completed in April. The Unit 2 control panel was replaced with a new control desk, which had a computerized Distributed Control System (DCS). For the past year, the operators and technicians trained on a simulator, which was an exact replica of this system. The new system was designed and manufactured by ABB.

IPSC also replaced the Generator Control System (Generex) on Unit 2 with a new system from GE (EX2100). The new system was mounted on the second floor in a separate enclosure and had control windings (potential transformers) on the first floor. The new control cabinet and the control windings were connected to the generator with bus ducts. The new DCS system and the new Generex were both installed because parts were no longer manufactured by the original suppliers to support the systems.



Another project that was done this year was the reinforcement of the circulating water lines with carbon fiber. There were 420 total sections of pipe in the Unit 2 circulating water lines and 55 of those sections were reinforced this year. Electrical jumpers were also installed between each of the joints to make the pipe electrically continuous. This allowed installation of a cathodic protection system which retarded further corrosion of the pipeline.

**Production Incentive** — A production incentive of 3.4 out of 5.0 was earned for the fiscal year ending June 30. The checks were distributed to employees on July 12.

**New Risk Manager** — In August, Van Beckstrom, Jr. was selected as the new Risk Manager, replacing Pat Finlinson.

**IPSC Health Fair** — IPSC held its on-site Health Fair in September. All employees, retirees, and spouses were invited to participate. The following



screenings were offered at no charge to employees, and at actual cost to retirees and spouses: cholesterol, blood pressure, glucose (diabetes), prostate-specific-antigen (PSA). Breast cancer awareness and other miscellaneous information booths were also provided.



**IPSC Received Platinum Level "Healthy Worksite Award"** — On October 4, 2006, the IPSC Staywell Program received the Platinum Level "Healthy Worksite Award" from the Utah Department of Health (UDOH) Council for Worksite Health Promotion. This program recognized the outstanding achievements of business in implementing employee health promotion and wellness programs. It acknowledged efforts to facilitate and encourage employee health, enhance productivity, and ensure healthy work environments. This year marked twelve consecutive years for IPSC receiving an award from the Governor's Council. Fifty-three worksites were honored at a banquet for this award.

**Live Fire Training** — Fire Brigade Crews participated in live fire training on November 29 and December 1. Staff from Utah State Fire & Rescue Academy were on site for two days to provide education and hands-on training to IPSC's Fire Brigade Crews.



**Sub-for-Santa** — IPSC employees opened their hearts and wallets to give generously this holiday season. Two hundred ninety-five gifts and \$840 cash were donated to the "Sub-for-Santa" program. This was a substantial increase from previous years.

**Number of Employees** — By the end of the year, the number of employees was 482.



## IPA

**Financing** — On June 30, the current weighted average borrowing cost was 4.74 percent.

**Outstanding Student Achievement Award** — Each spring, IPA awards \$500 grants as "Outstanding Student Achievement Awards." The award recognizes those students who are positive contributors to their schools and communities. This year, each school's Scholarship



Committee evaluated and selected their own student to receive this award. A check was made out to the individual students to provide financial aid in helping further their academic or vocational education.

Priscilla Thompson received the award for Millard High School. She participated in many extracurricular and community activities such as FCCLA, 4-H, National Honor Society, Math Team, Teen Council, Southwest District Ambassador, and many more, maintaining a cumulative 4.0 GPA and was her class valedictorian. Priscilla was named Sterling Scholar Regional Runner-up in mathematics for the class of 2006 and received the Engineering State 2005 Top Scholar Award. She plans to attend Brigham Young University (BYU) to receive her degree in Engineering.

The award for Delta High School went to Tyler Eliason. Tyler was involved in sports, student council, choir, and received his Eagle Scout award. He enjoyed singing and was the lead in two school plays. During his Senior year, he served as Student Body Secretary and was enrolled in ed-net classes where he earned 24 college credits. He plans planned to continue his education through distant learning during the summer and attending Snow College in the fall to earn his Associate Degree. Tyler plans to serve an LDS Mission for two years and continue his education at Utah Valley State College (UVSC) or Southern Utah University (SUU) when he returns home.



**IPA Provides Education Grant Money** — IPA announced it would provide grant money to IPSC to be used for post-high school education. The purpose of the grant was to assist dependents of IPSC employees in offsetting the costs of higher education. Both IPA and IPSC support higher education and are committed to helping others achieve their educational goals.

Reed Searle, IPA General Manager, presented George W. Cross, IPSC President and Chief Operations Officer, with an \$80,000 check to be used for the 2006-2007 school year. IPSC expressed great appreciation to IPA for the generous contribution to help IPSC employees with education expenses. In 2006, the grant money helped over 100 students. When funds are no longer available, the program will be discontinued. Grants were distributed in equal amounts between qualified applicants.

